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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,404	08/21/2003	Thomas E. Drake JR.	1017.P037USC1	7749

7590 03/27/2006  
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EXAMINER
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ALLEN, STEPHONE B

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/645,404

Applicant(s)

DRAKE, THOMAS E.

Examiner

Stephone B. Allen

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-21 is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,760,904 to Lorraine et al. (hereinafter referred to as Lorraine).

With respect to claims 1-4 and 7, Lorraine discloses a location mechanism (Figure 1) for an ultrasonic testing system, the ultrasonic testing system operable to test an object 14, the system having an energy generator 12, 18, the energy generator generating sonic energy in the object, the mechanism comprising an illumination generator (laser 12) that bathes the object with a first energy; an energy reception mechanism 20 that receives a second energy emanating from the object 14; the second energy emanating from the object in response to the first energy; the illumination generator and the energy reception mechanism associated with each other in a predetermined spatial relationship; the energy reception mechanism associated with the energy generator in a predetermined spatial relationship; and a control circuitry, communicatively coupled to the energy reception mechanism, that determines the spatial relationship between the object and the energy generator based on the reception of the second energy.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5, 6,8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorraine et al. (Lorraine '904).

With respect to claims 5, 6, 8 and 9, Lorraine '904 fails to disclose wherein the energy reception mechanism a camera or an array of photoreceptors. However, it would have been obvious for one of ordinary skill in the art to replace the detector of Lorraine with one as claimed in order to obtain an image of the condition of the object and since they are functionally equivalent.

With respect to claims 10 and 11, Lorraine fails to disclose wherein the illumination generator is a radar generation device or is in the infrared wavelength. However, it would have been obvious for one of ordinary skill in the art to replace the illumination generator of Lorraine with one as claimed in order to illuminate the surface of the object invisibly or undetected by the naked eye.

With respect to claim 12, Lorraine fails to disclose wherein the first energy comprising sonic energy. However, it would have been obvious for one of ordinary skill in the art to modify the system so that the first energy is sonic energy, since such would provide for audible detection.

With respect to claim 13, Lorraine fails to disclose wherein the location mechanism further comprises CAD data, the CAD data used by the control circuitry to determine the spatial relationship of the object and the energy generator. However, it would have been obvious for one of ordinary skill in the art to include CAD data into Lorraine in order to perform the control the system automatically.

***Allowable Subject Matter***

Claims 14-21 are allowed.


The following is an examiner's statement of reasons for allowance: The prior art fails to disclose, either singly or in combination, an ultrasonic testing system for detecting features of an object comprising an energy reception mechanism that receives a third energy emanating from the object; the third energy emanating from the object in response to the second energy; the illumination generator and the energy reception mechanism coupled to each other in a predetermined spatial relationship; the energy reception mechanism associated with the energy generator in a predetermined spatial relationship; and control circuitry, communicatively coupled to the energy reception mechanism, that determines the spatial relationship between the object and the energy generator based on the reception of the third energy.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephone B. Allen whose telephone number is 571-272-2434. The examiner can normally be reached on M-F 08:30-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Stephone B Allen  
Primary Examiner  
Art Unit 2878

sba